APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/527,350	03/17/2000	MASAHITO NIIKAWA	15162/01620	6531

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SIDLEY AUSTIN LLP
717 NORTH HARWOOD
SUITE 3400
DALLAS, TX 75201

EXAMINER
HANNETT, JAMES M

ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 01/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/527,350	NIIKAWA ET AL.
	Examiner	Art Unit
	James M. Hannett	2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 December 2005</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-29</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-29</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>17 March 2000</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Applicant's arguments filed 12/9/2005 have been fully considered but they are not persuasive. The applicant argues that Yamazuki does not show a process that operates "without a second command to turn off the electric power source". The applicant further argues that Yamazaki only shows a process where there is at least "a second command to turn off the electric power source" if there is video activity.

The examiner points out that the claim language of claim 1 is very broad such that several interpretations of the Yasmazaki et al reference can be applied to meet the claimed features. Furthermore, Claim 1 states "a controller which, in response to a command to turn off the electric power source which is issued while the display is performing writing by consuming electric power supplied from the electric power source, turns off the electric power source after completion of the writing without requiring a second command to turn off the electric power source". The claim does not require "a command to turn off the electric power source" and "a second command to turn off the electric power source" to perform the same function.

The examiner views the process of resetting the timer value to zero after subroutine (75) detects that the video memory write bit is ON as "a command to turn off the electric power source". Although this command is repeated multiple number of times until video writing is complete, the examiner views the last reset command in the series of reset commands to be the claimed "command to turn off the electric power source.... issued while the display is

performing writing". This reset command is not overwritten by subsequent reset commands and

is therefore, the command that will ultimately "turn off the electric power source after

completion of the writing". Furthermore, in this scenario, (75) detects that writing is occurring

and indicates that the video memory write bit is ON. This causes the program flow of Figure 7 to

reset the timer value (74). At this point in time, input to the keyboard (73) is determined and if

no inputs are detected, (75) is entered. Assuming at this point video writing has ceased, the video

memory write bit will have been set to OFF. Therefore, (75) will not reset (74) and will proceed

to (76) and increment the timer value. Since completion of the writing has occurred, the write bit

will continue to stay OFF. Therefore, the timer will be incremented until the camera is shifted

into standby mode (78). Therefore, a second command to turn off the electric power source (reset

timer (74)) is not required in this instance.

The applicant argues that Matsuzaki performs a process completely incompatible with the

claimed invention. The applicant states that Matsuzaki does not allow screen writing to complete

when power is off and initiates a process to erase the screen. The applicant then asserts that

Matsuzaki thus teaches away from the present invention.

In response to applicant's arguments against the references individually, one

cannot show nonobviousness by attacking references individually where the rejections are based

on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In

re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The examiner points out that although Matsuzaki performs a process incompatible with

the claimed invention, the rejection of the claim did not modify the process of Matsuzaki. The

examiner modified the system of Yasmazaki to use the display of Matsuzaki. The bi-stable

display of Matsuzaki is not limited to perform only the process discussed in Matsuzaki.

The applicant argues that Yasmazaki does not teach that a power-off process is delayed

when the display is writing, but rather teaches a new power-off process is initiated.

The examiner disagrees with the applicant and points out that Claim 5 only requires an

automatic power-off process and a delay process for delaying execution of the automatic power-

off process. The claim does not require the limitations discussed above related to Claim 1. In

Claim 5, an automatic power-off process is viewed as the shift to standby mode (78). This

process is delayed if video writing is occurring and the reset timer (74) is reset.

The applicant argues that the cited references do not show or suggest invalidating any

command sent from an input member. Furthermore, the applicant argues that Yasmazaki does

not teach that any command is issued in response to any input device is inhibited or affected by

the display operation.

The examiner disagrees with the applicant and points out that Claims 11 and 24 are

written broadly. Furthermore, the applicant does not claim what the input member is.

Furthermore, after subroutine (75) issues a command to reset the timer (74), if a key was pressed

at (73), the command to reset (74) from subroutine (75) is viewed by the examiner as

invalidating the original resetting operation. The examiner points out that the claim does not

specify what the command from the first input member is. Therefore, the examiner has viewed

the claim broadly.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

1:      Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN

5,768,604 Yamazaki et al in view of USPN 5,627,569 Matsuzaki et al.

2:      Regarding claims 1 and 15. Yamazaki discloses, in Figure 1, an electronic information

device comprising: a display (13); an electronic power source for supplying driving power to the

display (see col. 4, Lines 24-30). Furthermore, Yamazaki et al teaches on Column 5, Lines 1-14

and Lines 34-50 and depicts in Figure 7 that after no keys or actions are performed (73) for a

certain period, the computer checks to see if writing to the LCD display is complete (75). If the

writing is not complete, subroutine (75) sends a command to reset the timer value (74). Resetting

the timer value is viewed by the examiner as initiating a command to turn off the power to the

display. However, the power off command will not be executed until the timer value has been

allowed to reach zero. This would result if the computer has completed writing to the video

memory and no keys has been pressed on the computer during the set time period in (74).

Therefore, Yamazaki teaches a controller which, in response to a command to turn off the

electric power source (command to reset the power down counter after leaving subroutine (75))

which is issued while the display is performing writing. Yamazaki teaches that in subroutine

(75) if display writing is occurring an initiate power down command is executed which results in

the counter to be reset. Furthermore, Yamazaki teaches turning off the electric power source

(shift to standby mode) after completion of the writing. Yamazaki teaches in Figure 7 that if

video memory writing is still occurring, subroutine (75) will not power down until the computer

detects that no video writing is occurring. Yamazaki does not expressly disclose the use of a

display with uses a material having a memory effect.

Matsuzaki reveals that it is well known in the art to utilize ferro-electric liquid crystal

displays for their memory effect (see col. 1, lines 31-56). Matsuzaki et al further teaches that an

advantage of using the LCD display with a memory feature is that the image is displayed on the

display even after the power source to the display has been turned off Column 1, Lines 50-53 and

Column 1, Lines 62-64. Therefore, Matsuzaki et al teaches that the display is capable of

displaying a complete image after the power source has been turned off.

It would have been obvious to one of ordinary skill in the art to modify Yamazaki's

teachings of displaying image data using a conventional display with Matsuzaki's teachings of a

display with a memory effect. One would have been motivated to implement Matsuzaki's

teachings in an effort to retain a display state for a substantially long time. The examiner further

notes that displays with a memory effect are known for consuming less electric power.

3:      Regarding claims 2 and 16, Yamazaki discloses that the information is written on the

display based on image data (see col. 3, line 2).

4:      Regarding claims 3 and 17, Yamazaki discloses, in figure 1, an image pickup unit

(15) which picks up an image of an object by use on an image sensor and produces the image

data (see col. Line 6).

5:      Regarding claim 4, Yamazaki teaches a computer system with a power saving mode

which inhibits a power off command to the display once writing of image data is detected.

Yamazaki does not expressly disclose displaying and writing thumbnail images.

Official Notice is taken that it is well known in the art to display thumbnail images on a computer monitor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made for Yamazaki to implement such teachings since thumbnail images are notoriously associated with display devices.

6:      Regarding claims 5 and 19, see claim 1 above. In addition, Yamazaki discloses an automatic power-off process which turns off the electric power source at a specified time (see col. 4, lines 24-50). Furthermore, Yamazaki et al teaches on Column 5, Lines 1-14 and Lines 34-50 and depicts in Figure 7 that after no keys or actions are performed (73) for a certain period, the computer checks to see if writing to the LCD display is complete (75). If the writing is not complete, subroutine (75) sends a command to reset the timer value (74). Resetting the timer value is viewed by the examiner as initiating a command to turn off the power to the display. However, the power off command will not be executed until the timer value has been allowed to reach zero. This would result if the computer has completed writing to the video memory and no keys has been pressed on the computer during the set time period in (74). Therefore, Yamazaki teaches a controller which, in response to a command to turn off the electric power source (command to reset the power down counter after leaving subroutine (75) which is issued while the display is performing writing. Yamazaki teaches that in subroutine (75) if display writing is occurring an initiate power down command is executed which results in the counter to be reset. Furthermore, Yamazaki teaches turning off the electric power source (shift to standby mode) after completion of the writing. Yamazaki teaches in Figure 7 that if video memory writing is still occurring, subroutine (75) will not power down until the computer detects that no video

writing is occurring. Matsuzaki et al further teaches that an advantage of using the LCD display

with a memory feature is that the image is displayed on the display even after the power source

to the display has been turned off Column 1, Lines 50-53 and Column 1, Lines 62-64. Therefore,

Matsuzaki et al teaches that the display is capable of displaying a complete image after the power

source has been turned off.

7:       Regarding claims 6 and 20, Yamazaki discloses shifting from a "normal power-on state"

to a "standby state" after a predetermined timing period has elapsed; and thus, inherently teaches

a timer for counting a specified time period from a specified operation of the electronic

information device and for determining the specified time to turn off the electric power source.

8:       Regarding claims 7 and 21, Yamazaki discloses the specified operation includes an

operation of a key switch (see col. 4, line 40).

9:       Regarding claims 8 and 22, see claim 2 above.

10:      Regarding claims 9 and 23, see claim 3 above.

11:      Regarding claim 10, see claim 4 above.

12:      Regarding claims 11 and 24, Yamazaki discloses, in Figure 1, an electronic information

device comprising: a display (13); an electronic power source for supplying driving power to the

display (see col. 4, Lines 24-30). Furthermore, Yamazaki et al teaches on Column 5, Lines 1-14

and Lines 34-50 and depicts in Figure 7 that after no keys or actions are performed (73) for a

certain period (no input from the first input member), the computer checks to see if writing to the

LCD display is complete (75). If the writing is not complete, subroutine (75) sends a command

to reset the timer value (74). Resetting the timer value by (75) is viewed by the examiner as

initiating a command to turn off the power to the display. Furthermore, after subroutine (75)

issues a command to reset the timer (74), if a key was pressed at (73), the command to reset (74)
from subroutine (75) will invalidate the original resetting operation. The examiner points out that
the claim does not specify what the command from the first input member is. Therefore, the
examiner has viewed the claim broadly. However, the power off command will not be executed
until the timer value has been allowed to reach zero. This would result if the computer has
completed writing to the video memory and no keys has been pressed on the computer during the
set time period in (74). Therefore, Yamazaki teaches a controller which, in response to a
command to turn off the electric power source (command to reset the power down counter after
leaving subroutine (75) which is issued while the display is performing writing. Yamazaki
teaches that in subroutine (75) if display writing is occurring an initiate power down command is
executed which results in the counter to be reset. Furthermore, Yamazaki teaches turning off the
electric power source (shift to standby mode) after completion of the writing. Yamazaki teaches
in Figure 7 that if video memory writing is still occurring, subroutine (75) will not power down
until the computer detects that no video writing is occurring. Yamazaki does not expressly
disclose the use of a display with uses a material having a memory effect.

Matsuzaki reveals that it is well known in the art to utilize ferro-electric liquid crystal
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displaying a complete image after the power source has been turned off.

It would have been obvious to one of ordinary skill in the art to modify Yamazaki's

teachings of displaying image data using a conventional display with Matsuzaki's teachings of a

display with a memory effect. One would have been motivated to implement Matsuzaki's

teachings in an effort to retain a display state for a substantially long time. The examiner further

notes that displays with a memory effect are known for consuming less electric power.

13:     Regarding claims 12 and 25, Yamazaki discloses the first input member is for inputting a

command to shut off the supply of electric power to the display (see figure 4 where the suspend

switch 410 shuts off power to the display).

14:     Regarding claims 13 and 26, Yamazaki discloses, in figure 4, a second input member

(Key Input Suspend SW 411) with which an operator can input a command which is different

from the command inputted with the first input member; wherein, the controller controls the

electronic information device in accordance with the command sent from the second input

member regardless of whether or not writing on the display is being performed.

15:     Regarding claims 14 and 27, Yamazaki teaches a computer system with a power saving

mode which inhibits a power off command to the display once writing of image data is detected.

Yamazaki also reveals the use of a camera connected to the computer system for inputting image

data; and thus has a shutter button.

Official Notice is taken that it is well known in the art that the capturing of image data

using the shutter button could be performed without affecting the writing of image data on a

display (i.e. the image could be stored in the camera before it is sent to display) and thus it would

have been obvious to one or ordinary skill in the art that the controller be able to control the

electronic information device in accordance with the command sent from the second input .

member regardless of whether or not writing on the display is being performed since image

capture does not directly affect writing on the display.

16:     Regarding claim 18, see claim 4 above.

17:     Regarding claim 28, see claim 1 above.

18:     Regarding claim 29, see claim 19 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to James M. Hannett whose telephone number is 571-272-7309.

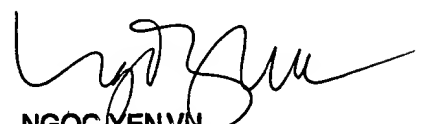The examiner can normally be reached on 8:00 am to 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ngoc Yen Vu can be reached on 571-272-7320. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. Hannett
Examiner
Art Unit 2612

JMH
January 11, 2006

NGOC YEN VU
PRIMARY EXAMINER